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EXAMINER
LE, MIRANDA

ART UNIT	PAPER NUMBER
2177	16

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 December 2003_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,5-8,14,17 and 19-35_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,5-8,14,17 and 19-35_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _24 December 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.
    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____.

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.   6)☐ Other: .

DETAILED ACTION

1.   This communication is responsive to Request for Reconsideration, filed 01/21/2004.

2.   Applicant's request for reconsideration of the finality of the rejection of the last Office action due to the Israel reference is invalid for the Applicant's priority date is persuasive and, therefore, the finality of that action is withdrawn, and a new Final Action follows.

3.   Claims 1, 5-8, 14, 17, 19-35 are pending in this application. Claims 1, 8, 14, 17, 19 are independent claims. In the Amendment A, claims 2-4, 9-13, 15-16, 18 have been canceled, claims 1, 5-8, 14, 17 have been amended, claims 19-35 have been added. This action is made Final.

Claim Objections

4.   Claim 8 is objected to because of the following informalities: line 8 of claim 8, "where" should be changed to "wherein". Appropriate correction is required.

Claim 19 is objected to because of the following informalities: line 6 of claim 19, "and." should be changed to "and" (i.e., no dot after the word "and"). Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

The term "may be", "may have" in claims 1, 17 are relative terms which render the

claims indefinite. The term "may have", "may be" are not defined by the claims, the

specification does not provide a standard for ascertaining the requisite degree, and one of

ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless:
>
> (e) the invention was described in
>
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or
>
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1, 6-8, 14, 17, 19-26, 30, 33-35 are rejected under 35 U.S.C. 102(e) as being

anticipated by Rao et al. (US Patent No. 6,628,312 B1).

Rao anticipated independent claims 1, 8, 14, 17, 19, by the following:

As per claim 1, Rao teaches "a computer implemented method of for presenting modeling information using a combination of space and time relationships and hierarchical, semantic relationships, the method comprising: providing at least one database comprising a plurality of data elements, each of said data elements having a mechanism to contain a representation of data in a space and time relationship" at col. 2, lines 27-42, col. 3, line 46 to col. 4, line 6, col. 5, lines 21-34, col. 10, lines 26-33, col. 6, lines 16-36, Fig. 1B;

"organizing each data element such that each data element may have at least one frame, each frame containing quantitative data along time and space axes, and such that each data element may have at least one event, each event configured so that it may be positioned along the time axis and include at least one hierarchical connection to at least one other of the plurality of data elements" at col. 2, lines 27-52, col. 7, lines 6-9, col. 9, lines 19-42, col. 10, lines 1-56, col. 6, lines 16-36, Figs. 4, 7, 8, 13, 17;

"wherein the hierarchical connection between each of the plurality of data elements is made through at least one event in each of two or more of the plurality of data elements with a link the link defined by a link model each link model categorizing data and indicating the purpose of the associated link" at col. 2, lines 27-42, col. 5, lines 21-34, col. 6, lines 51-59, Fig. 7.

As per claim 8, Rao teaches "a computer implemented method for modeling data, the method comprising: organizing the data into data elements, each data element configurable to have a frame and a second portion" at col. 3, lines 46-67, col. 4, lines 27-42, Fig. 17;

"configuring each frame such that the frame includes a place to hold a physical

representation of the respective data element including date, position, extension, orientation, and

additional data regarding the respective data element" at col. 4, lines 1-6, col. 10, lines 26-33,

"where the date information provides a location in time for the respective data element,

and the position information provides an indication of position in a coordinate system" at col. 2,

lines 27-52, col. 7, lines 6-9, col. 8, lines 42-52, col. 10, lines 1-56,

"configuring each data element such that the second portion includes a place to hold

semantic information in the form of a link to at least one second data element and a link model

that describes the reason why the link to the at least one second data element exists" at col. 2,

lines 27-42, col. 5, lines 21-34, col. 6, lines 51-59, Fig. 7.

As per claim 14, Rao teaches "a computer program product for organizing data

according to a data model, the product comprising: computer code that provides at least one

database comprising a plurality of data elements, each of said data elements containing a

representation of data in a space and time relationship, and being linked to other data elements in

a hierarchical relationship via one or more links, each link defined by a link models, each link

model categorizing data and indicating the purpose of the associated link" at col. 3, line 46 to

col. 4, line 17, col. 5, lines 19-34, col. 6, lines 18-59, Fig. 7;

"computer code that retrieves at least one of the data elements such that information can

be viewed based on spatial relationships, time relationships, or hierarchical relationships; and a

computer readable medium that stores the computer code" at col. 2, lines 27-42, col. 3, line 46 to

col. 4, line 17.

As per claim 17, Rao teaches "a method of creating a database using a data model, the method comprising: creating data elements, each data element having an event" see Fig. 1B;

"connecting the events in a space and time relationship" at col. 5, lines 19-34, col. 2, lines 27-42, Fig. 7, Fig. 9;

"providing a linking mechanism such that each data element may be linked to at least one other data element based on at least one common event in each of the data elements" at col. 6, lines 37-58, col. 8, lines 52-67, Fig. 3, Figs. 8, 9;

"assigning a link model to each of the links, the link model providing a reason for the existence of the link" at col. 5, lines 21-34, col. 6, lines 51-59.

"the linking of the data elements organizing the data elements in the database" at col. 6, lines 51-60.

As per claim 19, Rao teaches "a data model comprising:

a plurality of worldliness, each worldline having" at col. 2, lines 27-42, col. 6, lines 17-60,

"a time dimension" at col. 5, lines 19-34, col. 8, lines 42-67,

"and a unique identifier" at col. 6, lines 37-47,

"at least one frame, the at least one frame including space/time information and a unique identifier" see Fig. 17;

"an omni-directional link between at least two of the plurality of worldlines, the link including information regarding why it exists and a unique identifier" at col. 6, lines 17-60.

As per claim 6, Rao teaches "at least one of the plurality of the data elements is for a person" at col. 9, lines 48-56., Fig. 17.

As per claim 7, Rao teaches "at least one of the plurality of the data elements is for a geographic location" at col. 9, lines 48-56, Figs. 17, 18.

As per claim 20, Rao teaches "each worldline has a second dimension including at least one event having a unique identifier and organized in a time relationship" at col. 7, lines 32-36, col. 8, lines 42-67, Fig. 17.

As per claim 21, Rao teaches "each link includes a link model having a unique identifier" at col. 6, lines 37-47.

As per claim 22, Rao teaches "each frame includes date information" at col. 8, lines 29-41, col. 10, lines 21-33.

As per claim 23, Rao teaches "each frame includes position information" at col. 9, lines 19-41, Fig. 17.

As per claim 24, Rao teaches "each frame includes extension information" at col. 7, lines 33-37, col. 8, lines 52-67, Fig. 17.

As per claim 25, Rao teaches "each frame includes orientation information" at col. 9, lines 31-41.

As per claim 26, Rao teaches "each frame includes simple raw data or a pointer to complex raw data" at col. 6, lines 17-59, Figs. 6, 9, 17.

As per claim 30, Rao teaches "at least one of the plurality of data elements is for a business" at col. 9, lines 19-63.

As per claim 33, Rao teaches "at least one of the plurality of data elements is for a product" at col. 9, lines 19-63.

As per claim 34, Rao teaches "at least one of the plurality of data elements is for a

building" at col. 9, lines 19-63.

As per claim 35, Rao teaches "at least one of the plurality of data elements is for a

service" at col. 9, lines 19-63.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the invention was
> made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of
the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various
claims was commonly owned at the time any inventions covered therein were made absent any
evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out
the inventor and invention dates of each claim that was not commonly owned at the time a later
invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)
and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rao et al. (US

Patent No. 6,628,312 B1), in view of Reed et al. (US Patent No. 6,546,399 B1).

As per claim 5, Rao does not specifically teach "at least one of the plurality of the data

elements is for a historical event". However, Reed teaches this limitation at col. 17, lines 33-43.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Rao with the teachings of Reed to include "at least one of

the plurality of the data elements is for a historical event" in order to provide a search system

where one of the textual entry paths consists of a history timeline search program.

10.   Claims 27-29, 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao

et al. (US Patent No. 6,628,312 B1), in view of Toong et al. (US Patent No. 6,604,114 B1).

As per claim 27, Rao does not specifically teach "at least one of the plurality of data

elements is for a photograph". However, Toong teaches this limitation at col. 4, lines 36-67, col.

11, line 65 to col. 12, line 19.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Rao with the teachings of Toong to include "at least one of

the plurality of data elements is for a photograph" in order to provide a method for displaying

and correlating data records in a visually comprehendible manner so as to effectively

communicate relationships amongst data records.

As per claim 28, Rao does not specifically teach "at least one of the plurality of data

elements is for a painting". However, Toong teaches this limitation at col. 4, lines 36-67, col. 11,

line 65 to col. 12, line 19.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Rao with the teachings of Toong to include "at least one of

the plurality of data elements is for a painting" in order to provide a method for displaying and

correlating data records in a visually comprehendible manner so as to effectively communicate

relationships amongst data records.

As per claim 29, Rao does not specifically teach "at least one of the plurality of data

elements is for a musical composition". However, Toong teaches this limitation at col. 4, lines

36-67, col. 11, line 65 to col. 12, line 19.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Rao with the teachings of Toong to include "at least one of the plurality of data elements is for a musical composition" in order to provide a method for displaying and correlating data records in a visually comprehendible manner so as to effectively communicate relationships amongst data records.

As per claim 31, Rao does not specifically teach "at least one of the plurality of data elements is for a school". However, Toong teaches this limitation at col. 12, lines 1-10.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Rao with the teachings of Toong to include "at least one of the plurality of data elements is for a school" in order to provide a method for displaying and correlating data records in a visually comprehendible manner so as to effectively communicate relationships amongst data records.

As per claim 32, Rao does not specifically teach "at least one of the plurality of data elements is for a government agency". However, Toong teaches this limitation at col. 11, line 65 to col. 12, line 19.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Rao with the teachings of Toong to include at least one of the plurality of data elements is for a government agency" in order to provide a method for displaying and correlating data records in a visually comprehendible manner so as to effectively communicate relationships amongst data records.

Response to Arguments

11.   Applicant's arguments regarding Aoki neither discloses nor suggests the subject matter now claimed with respect to claims 1, 5-8, 14, 17, 19-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (703) 305-3203. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax number to this Art Unit is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Miranda Le
February 3, 2004

GRETA ROBINSON
PRIMARY EXAMINER